

ELECTION

Applicants elect claims 16-27 with traverse. Contrary to the restriction requirement stated in the Office Action, Applicants respectfully submit that the amendments made to claims 1-15 in the previous response were to further distinguish the claims from the cited reference. For example, replacing “a body part of a user” with “a second contacting portion of the hand” merely clarifies the body part being a part of the hand. As amended, claims 1-15 still read on Fig. 1-4 and were not drawn to a different embodiment.

Claims 1-15 are hereby withdrawn from consideration. Applicants, however, reserve the right to pursue claims 1-15 in a separate application.

REMARKS

Applicants respectfully request reconsideration of the application as amended. Claims 16-27 are pending. Claims 16 and 26 are amended.

I. General Considerations

Applicants note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants understanding and discussion of the references, if any, is consistent with the Examiner’s understanding.

Applicants also note that the remarks presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited reference. Such remarks, or a lack of remarks, are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicants: as to the purported teachings or

prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicants reserve the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

II. REJECTIONS MADE BY THE EXAMINER

A. Rejection Under 35 U.S.C. §102

In the present Office Action, claims 16-27 were rejected under 35 U.S.C. 102(b) as being anticipated by Bird et al. (U.S. Patent Number 6,108,438). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

In response, Applicants respectfully assert that Bird et al. does not teaches or discloses each and every limitation set forth in the independent claims 16 and 26, since ~~the apparatus and the method and the apparatus~~ as presently claimed is clearly distinct from the finger sensing device as disclosed in Bird et al. As such, the cited reference Bird et al. does not anticipate the independent claims 16 and 26 and all claims should be allowed.

1. Patentability of Independent Claim 16 and 26

The amended claim 16 recites in part: “driving a first charge initiated from a conductive structure adjacent to the pixel array, through a portion of a hand in contact with the conductive structure through the finger in contact with the insulator, into at least one of the plurality of storage capacitors.”

In the Office Action, the Examiner alleges that Figs. 1-3 in Bird et al. correspond to the method described in the independent claim 16. The Examiner draws a one to one comparison, where the finger in claim 16 corresponds to fingerprint 36 in Bird et al., the insulator in claim 16

corresponds to insulating layer 25, the plurality of electrodes in claim 16 corresponds to electrodes 33, the pixel array in claim 16 corresponds to the sensing circuit in Fig. 2 of Bird et al., and the substrate in claim 16 corresponds to substrate 15. The Examiner further alleges that “Bird is deplete with teachings of a first signal generator coupled to the conductive structure, wherein the first signal generator is operable to drive a charge through the conductive structure to the body part (Column 6, Lines 45-51; Column 8, Line 55; Column 9, Line 47),” as well as “the basic and known requirement of such a device as in Bird is to drive a charge to levels other than virtual earth voltage through a medium (i.e., a conductive medium) to the body to attain a fingerprint image (Column 1, Lines 25-35). Applicants respectfully disagree with the above statement as set forth by the Examiner.

The finger sensing device in Bird et al. is best illustrated by Fig. 3. Bird et al. describes the finger sensing device having an insulating layer (25 in Fig. 3) and a pixel sensing array beneath the insulating layer (33 in Fig. 3). The method to which Bird et al. reads the finger print is generally described in Column 6. Upon the finger being in contact with the insulating layer, an electronic representative of the 3-D form of the fingerprint surface are stored in the capacitors (Column 6, Lines 6-30) and charges are applied to row and column conductors of the array to select rows and columns of the sensing array for read-out (Column 6, Lines 36-50). The method described in amended claim 16 is fundamentally different. Referring to Fig. 3 of the current application, in the method described in amended claim 16 takes the following steps to read the finger print: the first charge 390 is initiated and driven from the conductive structure 390; through a portion of a hand in contact 381; further through a finger of a hand 110; then into at least one of the plurality of storage capacitors. Applicants note that Bird et al. does not describe any charge being initiated and driven from one part of the hand (e.g., the portion of the hand in contact with the conductive structure, and according to Fig. 3, the finger IS NOT in contact with the conductive structure) to another part of the hand (e.g., the finger), and into the storage capacitor. Applicants also note that the amendment further clarifies that two separate parts of the hand, “a portion of a hand” and “a finger”, each respectively is in contact with the “conductive structure” and “the pixel array coupled insulator.” As illustrated, the “conductive structure” and “the pixel array coupled insulator” in amended claim 16 are separate but adjacent physical structures. Thus, the “conductive structure” and “the pixel array coupled insulator” in

~~amended claim 16 are separate but adjacent physical structures. the~~ The “conductive structure” and “the pixel array coupled insulator” are also structurally and functionally different from the alleged equivalent structures in the finger sensing device in Bird et al., which is best illustrated by Fig. 3 of the current application.

In direct comparison, Bird et al. lacks the equivalent structures and the method to detect the finger print is completely different. The Office Action allegedly equates “a first charge” of the amended claim 16 to the diodes in Bird et al., which is not only a misrepresentation of the function of diode as known in the art, but also a misrepresentation of its function in Bird et al. The diodes in Bird et al. are embedded below the insulating layer 33 and integrated on the same substrate 15, and do not have any function in forming or driving a charge. The diodes in Bird et al. are used to charge and discharge the capacitance formed between the finger portion and the sense electrode (Column 6, Line 31-35) and do not come in physical contact with the hand of the user.

Assuming *arguendo* that the Examiner is correct that the basic and known requirement of such a device as in Bird is to drive a charge to levels other than virtual earth voltage through a medium (i.e., a conductive medium) to the body to attain a fingerprint image, Bird et al. did not describe a charge, as described in amended claim 16, to be driven through the body to attain a fingerprint image. In fact, any charge (e.g., potential, selection signal, voltage pulse) as described in Bird et al. function as signals to select rows and columns of the sensing array (Column 6, Lines 36-57), and is not driven through the hand of the user. Furthermore, the “first charge” in amended claim 16 is a charge, in addition to the body’s natural charge, that is initiated from the “conductive structure,” which cannot be mistaken with the charge that the body naturally carries (see Paragraph [0029] of the current application).

The Office Action also allegedly equates “a conductive structure” with charges driven through layer 25 in Fig. 3 as well as surface 26 in Fig. 3 (see pg. 3 of the Office Action). In fact, no structure in Bird et al. functions to initiate a charge to be driven from one portion of a hand to the finger and ultimately into the storage capacitors that is similar to the conductive structure in claim 16. The surface 26 in Bird et al., is integrated as part of layer 25, whereas in the currently

application, the conductive structure is a separate structure (illustrated in Fig. 3). This is further evidenced by performing a one to one comparison of the drawings in Bird et al. and the current application, specifically Fig. 3 of the current application against the drawings in Bird et al., as suggested by the Office Action, that it is obvious Bird et al. lacks a structure that has the similar function as the “conductive structure” as described in the amended claim 16 in the current application. Note that the “conductive structure” in amended claim 16 reads on 380 in Fig. 3 and “a first charge” reads on 390 in Fig. 3, and applicants fail to find anything remotely similar to either in Bird et al.

For the foregoing reasons, Applicant respectfully submits that the Examiner has failed to establish that the amended independent claim 16 is anticipated by Bird et al. because the Examiner has not established that each and every element as set forth in claim 16 is found in Bird et al. The rejection to the amended independent claim 16 should be withdrawn.

The amended independent claim 26 recites an apparatus comprising “means for initiating and driving a first charge from a conductive structure adjacent to the pixel array through a portion of a hand in contact with the conductive structure, through the finger, into a first contact of at least one of the plurality of storage capacitors.” As amended, the independent claim 26 contains the similar limitation as in the amended independent claim 16. As such, the amended independent claim 26 is also not anticipated by Bird et al. as the above remarks have concluded, and should be allowed as least for the same reason as the amended independent claim 16.

2. Patentability of the Dependent Claims Associated with Amended Independent Claims 16, and 26

The dependent claims 17-25 and 27 were rejected under 35 U.S.C. 102(b) as being anticipated by Bird et al. Since the dependent claims 17-25 and 27 depend on the amended independent claims 16, and 26, each dependent claim includes all the limitations of the respective base claim. If the respective base claim is allowable as concluded by the remarks above, these dependent claims also are not anticipated by the cited references as alleged in the Office Action. For the foregoing reason, Applicant respectfully submits that the dependent

claims 17-25 and 27 should be allowed for at least the same reasons that their respective base independent claims 16, and 26 are allowable.

B. Conclusion

In view of foregoing, Applicants respectfully submit that each of the pending claims 1-27 is in condition for allowance. Therefore, reconsideration of the rejection is requested and allowance of these claims is earnestly solicited. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 16th 2nd day of January, 20098.

Respectfully submitted,

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